

XXXV.—*A Contribution to the Ornithology of Gilgit.*

By JOHN SCULLY.

(Plate XIV.)

THE following notes on the birds of Gilgit are founded on a collection of 1543 specimens obtained in that country during a residence of nineteen months. Of this period nine months were passed in Major Biddulph's company; and for the rest of the time I was alone.

I have endeavoured to make my remarks quite supplementary to Major Biddulph's interesting paper on the birds of this region, published in this Journal (*antea*, p. 35). I have restricted my observations here to the precise limits of country laid down by Major Biddulph, and, as a matter of convenience, have adopted his classification and numbers; the species not preceded by numbers in my paper were omitted in his account. This explanation renders unnecessary a reference to my friend's paper under each species.

My specimens have been carefully compared by me in this country; and with reference to this matter I have to acknowledge my obligations to Messrs. Seebohm and Dresser, who have kindly allowed me the freest access to their fine collections.

1. VULTUR MONACHUS, Linn.

I never saw this Vulture in the Gilgit district. Young *Gyps himalayensis*, soaring at a distance, might very easily be mistaken for it. From what we know of the distribution of *V. monachus*, however, it should certainly be found about Gilgit.

2. GYPS FULVESCENS, Hume.

As already noted (*antea*, p. 38), Major Biddulph's supposed example of this species is probably the young of *Gyps himalayensis*; but the specimen should be carefully compared, as the true *G. fulvescens* is likely to occur in Gilgit on passage to Turkistan, whence Severtzoff seems to indicate it under the name of *Gyps rutilans*.

3. *GYPS HIMALAYENSIS*, Hume.

This fine species, as seen on the wing, has the whole body white, sharply contrasted with its black wings and tail; its great size and majestic flight make it a very characteristic adjunct of Gilgit scenery. I have seen it in winter at elevations not exceeding 5000 feet; but it never seeks its food close to the villages, like the Bearded Vulture. The following are measurements in the flesh of a fine adult female:—Length 3 feet 11 inches, expanse 9 feet 3 inches, wing 31 inches, tail 16·4, tarsus 4·6, mid toe *s. u.* 4·3, bill from gape 3·15.

5. *GYPÆTUS BARBATUS*, Linn.

The Lämmergeyer is held in respect by the natives of Gilgit, who have some story to the effect that the bird was a companion of their Prophet. Once I fired at one of these birds as it sailed over a field; and, in its alarm, it dropped a large bare bone, which nearly struck me. An adult male, with the lower surface rusty red, measured, length 3 feet 10 inches, expanse 8 feet 9 inches, wing 32 inches, tail 21·7, tarsus 3·6, mid toe *s. u.* 3·6, bill from gape 3·8. Iris bright orange.

6. *FALCO PEREGRINUS*, Tunstall.

Peregrines are found in Gilgit in October when migrating southward, and in April on their passage to the north. I doubt whether they “breed in the neighbourhood of Gilgit at about 6000 feet.” A male Peregrine, shot on the 25th April, agrees with Sharpe’s description of the adult male (Cat. i. p. 377), except that the feathers of the mid abdomen are not cross-barred, but have merely small dart-shaped marks; the flanks are pale grey, cross-barred with black; and the forehead is not whitish, but slate-grey, with black shafts, like the rest of the head. Length 16 inches, wing 12·25, tail 6·5, tarsus 1·8, mid toe *s. u.* 2·15, bill from gape 1·15, weight 1 lb. 4 oz.

FALCO SACER, Gmelin.

This species must be added to the list of birds of Gilgit. A specimen was captured in Gilgit in October 1879, when it was doubtless migrating southwards. The bird was immature; but, after careful examination, its large size and large

oval spots on the centre tail-feathers left no doubt that it was a true Saker.

7. *FALCO SUBBUTEO*, Linn.

The Hobby is very common in Gilgit at 5000 feet, on arrival, from the end of April to the second week in May, and again on its way southwards from the last week in September to the middle of October.

Out of eleven specimens preserved, only three are fully adult. Two males, shot in autumn, are changing from a dark brown upper plumage to the slaty colour of the adult; they have rich ferruginous thighs and under tail-coverts; and the uropygials are regularly barred across both webs. Six immature birds all want the rich rufous thighs and under tail-coverts of the adult, are more broadly streaked on the lower surface, have the under wing-coverts and axillaries more rufous, and all have pale margins to the feathers of the upper surface; only one of these specimens has faint bars on the uropygials. Of the eleven specimens, therefore, only three have the uropygials barred; and these exceptions are males.

+ 8. *FALCO ÆSALON*, Tunst.

The Merlin, according to my observation, is only found in Gilgit in winter, and is not common. Considerable difference of opinion has prevailed about the plumage of the fully adult female in this species, Mr. Sharpe having stated, in the first volume of the British-Museum Catalogue, that the adult female is blue-grey above, like the male, while Mr. Dresser has taken some pains to prove, in his 'Birds of Europe,' that this is not the case. The evidence of the Gilgit specimens is entirely in favour of Mr. Sharpe's view, as I shall now show.

It will be noticed that in Major Biddulph's note on this species he mentions a female with the wing 8.85 inches, and says that it is much paler than the male [adult] specimen; he adds, "the blackish tinge on the *grey* of the head and shoulders has almost entirely disappeared." On the 10th December I shot a female, as proved on dissection by myself,

of which the following is a description :—Length 12·25 inches, expanse 27·2, wing 9·25, tail 6·2, tarsus 1·4 (feathered in front), bill from gape 0·7, closed wings short of end of tail 0·8; weight 6·2 ounces. Above, including the secondaries and wing-coverts, pale blue-grey, lighter on rump and upper tail-coverts; all the feathers with distinct black shaft-stripes, most marked on the head, where the crown is lightly tinged with buff. A broad band, including the sides of the neck and the nape, rich rufous, this colour being prolonged narrowly above the ear-coverts to hinder margin of the eye, where it meets the supercilium; all the feathers streaked or shafted black. Forehead, lores, supercilium, and sides of face sullied white; a small dark streak downwards from anterior commissure of eye; ear-coverts pale rufescent, margined with grey posteriorly; chin and throat white, bounded on each side by a pale rufous band, with the feathers black-shafted; entire underparts rufous-buff, paler on abdomen, with median blackish shaft-stripes. Under wing-coverts white, barred with black, and black-shafted. Quills greyish black, barred with white on the inner web, and suffused with bluish grey near the bases of the outer webs; outer web of first primary margined with pure white, and all the quills narrowly margined with greyish white at their tips. Tail pale bluish grey, with black shafts, a broad subterminal band of black and a narrow white tip; beneath the inner webs of all but the uropygials crossed by about seven black bands, exclusive of the broad subterminal one.

Mr. Gurney, who has examined the interesting specimen above described, suggests to me that the reason why the stage of plumage it represents is not better known in Europe is probably due to the fact that this Falcon is here seldom allowed to attain to old age. The female Merlin doubtless takes a considerably longer time to attain the fully adult plumage than the male; but that the plumage I have described is not exceptional is, I think, proved by the fact that of three Merlins shot in Gilgit two are females, both in grey plumage.

† 9. *CERCHNEIS TINNUNCULUS* (Linn.).

The Kestrels in my collection from Gilgit are of the common

pale form; but two specimens have the black bars on the upper surface rather strongly marked, though not so greatly as in the race called *C. saturatus* (Blyth). A male in transition from immature to adult dress has the change most marked on the rump, next on the head, and least on the tail; the tail is usually considered the first part to undergo change. An old female has the rump and upper tail-coverts blue-grey, with faintly rufous tips; the tail grey, washed with rufous, especially at the margins, and with incomplete black bars, interrupted along the shafts of the feathers.

10. *ASTUR PALUMBARIUS* (Linn.).

Goshawks are not uncommon about Gilgit in autumn, on migration. In the autumn of 1879 many immature specimens were captured in Gilgit itself. The instance mentioned by Major Biddulph of a Goshawk being carried from the Valley of the Oxus to Bombay, and many similar cases known to me, should be borne in mind in assigning localities for trained birds of prey. Thus the fact that a Rajah in the Punjab has a trained Falcon of a certain species, should certainly not be considered proof that the bird in question was not captured in Central Asia.

11. *SCELOSPIZIAS BADIUS* (Gmel.).

A migratory species in Gilgit, passing northwards in April, and southwards in September. It is rare with us, or, at all events, makes a very short stay in the district.

12. *ACCIPITER NISUS* (Linn.).

Common from the first week in April to the second week in December. In seven males the wing measures 8 inches to 8·5, tail 6·6 to 7·1, tarsus 2 to 2·2; weight 5 to 5·3 ounces. Seven females measure, wing 9·3 to 10 inches, tail 7·9 to 8·5, tarsus 2·15 to 2·4; weight 7 to 9·5 ounces. Of these fourteen examples two males and two females have five bars on the uropygials, all the rest have only four bars on these feathers.

14. *AQUILA CHRYSÆTUS* (Linn.).

An old male, without any white on the tail, shot on the 3rd April, measured:—Length 33·5 inches, expanse 82·5,

wing 25, tail 15·2, tarsus 4, mid toe 3·2, bill from gape 2·55; weight 7 lb. 3 oz.; irides *dull yellow*.

15. *NISAETUS PENNATUS* (Gmelin).

The Booted Eagle is a summer visitor to Gilgit, and is common from the middle of March to the first week in October; it breeds at an elevation of 5000 feet. The dark and light forms are about equally common, the difference in colour not being dependent upon sex. The iris seems to be variable in colour, some having it buff marked with darker spots, others orange, and one brownish yellow. In four males the wings varied in length from 14·3 to 15·3 inches; in two females they measured 15·7 and 16·5; a male weighed 1 lb. 10 oz., and a female 2 lb. 9 oz. A nestling, captured on the 12th July, had the underparts pale.

16. *PANDION HALIAETUS* (Linn.).

The Osprey is not common in Gilgit, and probably occurs there only on migration. It has been observed throughout March and during the first week in April, and again in September on its way southwards. I never saw it in winter. A male shot on the 16th September measured—length 22 inches, wing 17·7, tail 9, tarsus 2·1, bill from gape 1·5; the closed wings extended half an inch beyond the tip of the tail. In this specimen the feathers of the upper surface are margined with white, the bars on the tail are distinct, and the mottling on the breast is mostly fulvous.

17. *BUTEO FEROX* (Gmelin).

I preserved 17 specimens of this Buzzard in Gilgit; but my series leaves me still greatly in the dark as to the explanation of the perplexing variations in size and plumage of this species. In the adults the males have the wing 16·15 to 17·4 inches, length of tarsus 2·8 to 3·4, bare portion of tarsus in front 1·1 to 1·7; in the females, wing 17·2 to 18·4, tarsus 3 to 3·3, bare portion of tarsus 1·2 to 1·6. The smallest female has the dimensions considerably below what is given for *B. ferox*; but there is no doubt about the determination of the sex, and it cannot be referred to any other species. The colour of the iris is very variable, ranging from brown to yellowish cream-colour. In plumage

hardly two specimens are alike; but certainly the oldest bird is the palest in the series, and has the tail salmon-coloured, with only traces of imperfect bars near the tip. Captain Wardlaw-Ramsay's interesting discovery of a nestling of this species in the melanistic phase of plumage (Ibis, 1880, p. 47), effectually disposes of the view that the darkest examples are only old birds.

18. Buteo plumipes, Hodgs.

This Buzzard is found in small numbers about Gilgit from December to the end of March. A female, shot on the 23rd February, measured—length 19 inches, wing 15·8, tail 9·8, tarsus 2·6, bare portion of tarsus in front 1, bill from gape 1·6; weight 1 lb. 15 oz.; iris drab; tail with mottling and traces of imperfect barring near the shafts of the feathers only. Another female, shot on the 21st March, measured—length 21 inches, wing 16, tail 9·6, tarsus 2·7, bare portion of tarsus in front 1; iris hair-brown; tail barred. Both these specimens are in the phase of plumage to which the title of *Buteo japonicus* is usually applied.

19. Circus cyaneus (Linn.).

The Hen-Harrier is a winter visitor, arriving in the last week of September and leaving early in May. Immature males, in the plumage of the female, and adults of both sexes have the irides yellow; the immature female has the iris hazel-brown.

20. Circus macrurus (Gmel.).

This species must, I think, be considered a winter visitor, appearing at the end of August, and leaving about the middle of May. I have shot it in Gilgit early in January, and observed it throughout the winter of 1879–80. Like *Circus cyaneus*, in this species the adults of both sexes and the immature male have the irides bright yellow, while the immature female has the iris dark brown.

21. Circus cineraceus (Mont.).

This Harrier passes through Gilgit on migration, being fairly common from the third week in March to the first week

in May, and reappearing on its way southwards about the third week in September. In two adult males the iris was bright yellow; in two immature males the iris was hazel, slightly tinged with yellow in one, and pale straw-colour in the other example.

22. *CIRCUS ÆRUGINOSUS* (Linn.).

In twelve specimens, the males have the wings 14 to 16·1 inches, the females 15·4 to 17. The adult female has no grey colour on the wings or tail. If in this sex the plumage of the adult male is ever assumed, the case must be as exceptional as in the Kestrel. The adults of both sexes have the iris yellow; and the immature birds of both sexes have the iris brown. In the male changing to adult plumage, the tail is the first part to become grey; and at this stage the iris is of some shade intermediate between brown and yellow.

23. *MILVUS MELANOTIS*, Temm. & Schl.

The Kite referred to by Major Biddulph under the name of *Milvus govinda*, and which I call *M. melanotis*, is a migratory species in Gilgit, appearing as early as the 2nd February, and passing over the valley in large flocks until the beginning of May. In five males the wings measure 19·25 to 20 inches, tail 12·7 to 13, tarsus 2 to 2·2; in a female, wing 20, tail 13, tarsus 2·2.

I cannot agree with Captain Marshall that Mr. Brooks has conclusively shown that *Milvus melanotis* (= *M. major*, Hume) should be called *M. govinda*. Following Mr. Gurney (Ibis, 1879, p. 76), it seems necessary to recognize three races of Kites in India, under the names of *M. melanotis*, *M. govinda*, and *M. affinis*. Of course, if these three forms are to be considered as constituting only one species, they must all be joined under the title of *M. govinda*.

MILVUS GOVINDA, Sykes.

This medium-sized Kite, which is not included in Major Biddulph's list, appears to be a straggler to Gilgit, probably from some of the valleys to the south, where it may be resident. I obtained two adult females in April, which have the wings 18·8 and 18·9 inches, and the tails 11·3 and 12. These



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SYRNIUM BIDDULPHI

it will be noticed, are conspicuously smaller than even the males of the race I call *M. melanotis*. I at first thought that these two specimens might be *Milvus migrans*, which has been recorded from Afghanistan; but on comparison with specimens of the latter species from Sarepta, it became evident that the Gilgit birds are distinct.

24. *SYRNIUM BIDDULPHI*, sp. nov. (Plate XIV.)

Adult female. Crown and space between the facial disks uniform blackish brown; occiput, nape, and hind neck dark brown, the feathers indented on the margins with greyish white, giving a spotted appearance to this region. Back, minor and median wing-coverts, rump and upper tail-coverts greyish brown, profusely vermiculated with greyish white; the scapulars and median wing-coverts with large white spots on their outer webs. Primaries and their coverts dark brown, with pale ochraceous-brown bars and tips, which are stippled with dark brown, the bars on the outer webs of the third to sixth primaries creamy white, slightly mottled with brown; secondaries pale brown, freckled with irregular greyish white bars, which become pure white on the margins of the inner webs. Uropygials pale greyish brown, irregularly vermiculated with dark brown, and having only indications of one or two very narrow imperfect bars near the tips; the next pair of rectrices with the outer webs unbarred, and coloured like the uropygials, the inner webs broadly barred with dull brown; the rest of the tail-feathers dark brown, irregularly barred on both webs with pale ochreous, which becomes nearly white towards the margins of the inner webs; all the rectrices tipped with white. Facial disk greyish white, the feathers with blackish shafts and two or three narrow bars of dark brown across both webs; the ruff surrounding the disk blackish brown, beautifully barred with white, above the anterior part of the eye and on the chin the white bars suffused with rufous. Underparts white, all the feathers with a central broad streak of blackish brown, and complete transverse bars on both webs of the same colour, the feathers of the fore neck having one bar, those on the breast two, on the abdomen

three, and on the under tail-coverts four; under wing-coverts and axillaries white, irregularly barred and spotted with brown. Tibial feathers cream-colour, transversely barred with brown; feathers covering the tarsi and toes white, irregularly mottled here and there with brown. Cere green; bill green, yellow at tip; iris black. Length 19 inches, expanse 44·5, wing 13·6, tail 8·6, tarsus 1·85, bill from gape 1·45, cere 0·7, closed wing short of end of tail 2.

Adult male. Similar to the female in colour, but the ear-coverts darker and more strongly barred. Cere olive; bill green, yellow at tip; iris dark brown; toe-scales pale green; claws black, slaty at bases. Length 18·7 inches, expanse 42·6, wing 12·7, tail 8·5, tarsus 1·8, bill from gape 1·46, cere 0·65, closed wings short of end of tail 1·7; weight 1 lb. 3¼ oz.

The measurements given above were taken from fresh birds, the wings being measured on the under surface. As this is not the usual practice in measuring wings of large birds, I must mention that, taken on the upper surface with a tape, the wing of the female has a length of 14 inches, and that of the male 13.

This species differs from *S. davidi* by its smaller size, vermiculated (not plain) rump, and different character of markings. From *S. nivicolum* it differs in being larger, in not having the uropygials barred, and by its colour. With the ordinary form of *Syrnium aluco* it could not be confounded for a moment; from the large grey form of *S. aluco*, of which I have examined fine female specimens from Stockholm and Tangier, with the wing 11·5, it differs in its much greater size (the male Gilgit bird being considerably larger than even the largest female of this race), in its paler and greyer colour, different character of markings, &c.

This fine Owl is probably a permanent resident in the Gilgit district, and seems to keep closely to the forests. I obtained my specimens on the 30th September and 13th November.

25. *ASIO OTUS* (Linn.).

The Long-eared Owl arrives early in March, and is com-

mon up to the middle of May. Females are rather darker and more boldly marked than males; but the difference is not so conspicuous as in *Asio brachyotus*.

26. *ASIO BRACHYOTUS* (Gmel.).

The Short-eared Owl is found in Gilgit on passage, being fairly common from the middle of April to the middle of May, and again on its way southwards from the beginning of November to the 20th December. The females are much darker than the males, and have the black marks more prominent and the general colour more buff. Major Biddulph's remarks have reference to this sexual difference, I think, as he only had a male from Gilgit before him when his note was written.

27. *BUBO TURCOMANUS*, Eversmann.

I agree with Messrs. Biddulph and Marshall that this Owl is specifically distinct from *Bubo ignavus*. I did not obtain a specimen of *B. turcomanus* in Gilgit; but, as far as my memory serves me, Major Biddulph's specimen is identical with the Eagle Owl I obtained in Yarkand ('Stray Feathers,' iv. p. 129, 1876), which is certainly distinct from *B. ignavus*. Eversmann's Eagle Owl is probably only a rare straggler to Gilgit in winter.

BUBO IGNAVUS, Forst.

A pale form of the Eagle Owl is not uncommon in Gilgit in winter at an elevation of about 5000 feet. Two males measured—length 24·8 and 25·5 inches, wing 17·1 and 17·2, tail 10, tarsus 2·7, bill from gape 1·9; one of these examples weighed 3 lb. 5 oz.; the third primary is the longest, the second a little longer than the fourth, and the first primary is intermediate in length between the fifth and sixth.

Compared with a large series of *B. ignavus* these specimens differ greatly in colour, being much paler and less rufous; indeed two high authorities on the birds of prey, on seeing these skins, would not admit that they were to be assigned to *B. ignavus*, and suggested that they should be compared with *B. bengalensis*. But *B. bengalensis* is much smaller, the largest female not measuring more than 16 inches in length

of wing (in four specimens I have measured the wings vary from 14·75 to 15·5); the wing is differently shaped, the fourth quill being the longest, and the second half an inch shorter than the fourth; there is more black on the back and minor wing-coverts; and the toes are less feathered.

My Gilgit birds are specifically distinct from the Yarkand specimens which I refer to *B. turcomanus*, and are doubtless the same as the specimen recorded as follows in P. Z. S. 1860, p. 99:—"Mr. Selater exhibited a specimen of a large Horned Owl shot by Major W. E. Hay, F.Z.S., upon the borders of the Pângkông Lake, in Thibet. He was disposed to consider the bird as a pale variety of *Bubo maximus*." This form of Eagle Owl, which appears to be confined to the interior of the Himalayas, should perhaps be distinguished from *B. ignavus*, at least as a subspecies, and would then probably bear the title *Bubo hemachalanus*, Hume.

28. *SCOPS PENNATUS*, Hodgs.

In addition to the specimen in my collection mentioned by Major Biddulph, I obtained a female of this Owl in Gilgit on the 4th October, which measured—length 7·9 inches, wing 6·4, tail 2·8, tarsus 1, bill from gape 0·8, closed wings beyond the tip of tail 0·1. This example is in the dark grey phase of plumage, with only some mottlings of rufous on the breast and shoulders; the male, the measurements of which are given in Major Biddulph's paper, is about half rufous and half grey. In both specimens the second and third primaries are subequal and longest, and the first is intermediate in length between the fifth and sixth. Some specimens of the variable *Scops giu* are hardly separable from these Gilgit birds.

29. *SCOPS BRUCII*, Hume.

I obtained five specimens of this species in Gilgit, in March, April, and September. Two males measured—length 8 inches, wing 6·4 and 6·5, tail 3 and 3·3, tarsus 1·2, bill from gape 0·75 and 0·8. Three females measured—length 8 to 8·8 inches, wing 6·45 to 6·7, tail 3·3 to 3·6, tarsus 1·1 to 1·15, bill from gape 0·75 to 0·8; one of these examples weighed 3·3 oz. In these five specimens the third quill is the longest, the second

and fourth are subequal, and the first is intermediate in length between the sixth and seventh. There is no appreciable variation in colour, all being of the same characteristic brownish-buff tint. After careful comparison with the fine series of *Scops giu* and allies in the British Museum, I do not doubt that *Scops brucei* is a perfectly good and distinct species.

30. *HIRUNDO RUSTICA*, Linn.

Three females in my collection, shot in April and May, have the wings 4·5 to 4·7 inches, and the tails 3·1 to 3·65. All have a broad black pectoral band.

31. *HIRUNDO RUFULA*, Temm.

This Swallow is a summer visitor to Gilgit, but never appears to be common. A female measured—length 6·6 inches, wing 4·35, tail 3·45 (to fork 1·7), tarsus 0·45, bill from gape 0·55. From *Hirundo nipalensis*, to which Major Biddulph referred it, the Gilgit red-rumped Swallow is distinguished by its smaller size, faintly striated lower surface, and unstriated ear-coverts. In a note to Biddulph's paper I identified the species as *H. erythropygia*, Sykes; but on fuller examination I now feel satisfied that it is really *Hirundo rufula*. The difference between these two forms is slight: *H. erythropygia* is smaller, and has the rump uniform chestnut, while *H. rufula* is larger, and has the chestnut rump paling to nearly white towards the upper tail-coverts; two females of *H. erythropygia* have the wing 4·1 and 4·3, and a male 4·35; and five males of *H. rufula* have the wing 4·55 to 4·85, and five females 4·45 to 4·75. Now my Gilgit specimen has the rump paling to white towards the tail, and, though rather small, must be referred to *H. rufula*.

32. *COTILE RUPESTRIS* (Scop.).

A summer visitor, arriving about the third week in March, and very common in the lower valleys throughout April and May. In the males collected the wings measure 5·1 to 5·4 inches, and in the females 4·95 to 5. Eight specimens shot in spring have dusky streaks and mottlings about the chin; in some this marking is confined to the point of the chin, while in others it extends to the throat and cheeks.

CHELIDON URBICA (Linn.).

The House-Martin is a summer visitor, and is very common in Gilgit in May and June. A female, shot in Gilgit on the 10th May, agrees with many European examples with which I have compared it in the colour of the axillaries and under wing-coverts, and in all other particulars. Length 5·5 inches, wing 4·4, tail 2·6, tarsus 0·53, bill from gape 0·5; the uropygials 0·8 shorter than the outermost tail-feathers. Major Biddulph does not include this species in his list, but gives the closely allied *Chelidon cashmiriensis*, which I did not obtain; the length of the tarsus in his specimen is misprinted 5 for 0·5.

34. CYPSELUS PEKINENSIS, Swinhoe.

This Swift is a summer visitor to Gilgit. It was common in the lower valleys throughout May and the first half of June, but in July and August was only found at elevations of over 9000 feet. Gilgit specimens agree perfectly with the type of *Cypselus pekinensis*, Swinhoe. This form, as has been often pointed out, differs from the European *C. apus* in being paler throughout, with a markedly paler forehead, more white on the chin and throat, and with a white margin above the anterior part of the eye. The difference is doubtless slight; but on actual comparison of specimens it is manifest. Many accepted species do not differ in a greater degree; and it seems that a coloration which is constant in such a range as from Pekin to Gilgit is worthy of some notice in our nomenclature.

35. CAPRIMULGUS UNWINI, Hume.

This Goatsucker is only a summer visitor; it arrives early in May, and is common in the lower valleys at an elevation of about 5000 feet. A specimen obtained by Mr. Blanford at Saigán, on the Persian plateau, and referred by him to *C. europæus*, is identical in colour, markings, and size with Gilgit examples. *Caprimulgus unwini* is closely allied to *C. europæus*; but on comparison of my specimens with a large series of European birds, I find that they differ in being of a paler silvery-grey colour. It seems desirable to distinguish this

eastern form, which is the *C. europæus*, var. *aralensis*, of Severtzoff, under the name of *C. unwini*.

36. *MEROPS PERSICUS*, Pallas.

This Bee-eater was only observed in Gilgit from the 20th to the 28th November, 1879, when several flocks passed over the valley on migration southwards. I secured three immature specimens, two males and one female, with the uropygials only from 0·2 to 0·4 longer than the next pair of rectrices. These birds measured—length 10·3 to 10·5 inches, wing 5·6 to 5·65, tail 4 to 4·1, tarsus 0·47 to 0·5, bill from gape 2·05 to 2·15. The female has the bill more slender than the males; the chestnut-colour of the throat is paler; and the rump and upper tail-coverts are not so blue.

38. *CORACIAS GARRULUS*, Linn.

The Common Roller is plentiful in the hottest valleys of the Gilgit district throughout the summer, and there makes day hideous with its harsh grating cry: it does not appear to ascend above 6000 feet. In 1880 it made its first appearance in Gilgit on the 30th April. Most of these birds leave us in October; but I have observed stragglers as late as the 11th November. Five specimens, measured in the flesh, gave the following results—length 13·1 to 13·4 inches, wing 7·7 to 8·25, tail 5·4 to 5·6, tarsus 0·9, bill from gape 1·85; a male weighed 4¾ oz. Gilgit specimens agree completely with examples from Asia Minor.

39. *PICUS HIMALAYENSIS*, Jard. & Selby.

This Woodpecker is strictly confined to the pine-forests, and does not straggle down to the lower valleys. Half a dozen adult specimens have the wings 5·3 to 5·4 inches, tails 3·35 to 3·8, bill from gape 1·3 to 1·45. The specimens described by Captain Marshall as having the underparts sullied, the lower tail-coverts very pale, and the bill short, are merely the immature of this species; and I cannot agree with him that they constitute “a very remarkable race.”

Adult male *P. himalayensis* differs from the adult male *P. major* in having the whole crown crimson, while the latter has only the occiput thus coloured, and in several other

points; but the young males of these two species are very much alike, both having the whole crown crimson and the lower surface yellowish and slightly dark-streaked. The young birds, however, can be readily separated by the colour of the ear-coverts; in *P. major* this part is whitish throughout; in *P. himalayensis* the anterior upper half of the same region, behind the eye, is dusky or blackish.

40. *GECINUS SQUAMATUS* (Vig.).

A permanent resident in the district, found in the lower valleys from November to May, and during the rest of the year at an elevation of about 9000 feet. In six specimens the wings measured 6·4 to 6·6 inches, tails 5 to 5·4, bill from gape 1·77 to 2·1. The specimens mentioned by Captain Marshall as having the neck and back grey were probably birds about a year old, with the feathers worn and faded, and at the next moult would have assumed the usual green colour. A moulting female in my collection, shot on the 4th August, has the hind neck and upper back brownish grey; but a few new feathers which have appeared on those parts are quite green. Mr. Blanford, in his 'Zoology of Persia,' p. 135, describes a parallel stage of *Gecinus viridis* in a specimen which was scarcely mature (probably a bird of the preceding year) and with the plumage worn.

41. *LYNX TORQUILLA*, Linn.

The Wryneck is common from the middle of April to the first week in October. A male shot on the 22nd April had the irides hazel. In none of my specimens is there any trace of rufous on the underparts, as mentioned by Major Bid-dulph; the colour which pervades these parts to a variable extent is buff-yellow.

42. *CUCULUS CANORUS*, Linn.

The Common Cuckoo is a summer visitor, and is fairly common from the beginning of May to September. Some of my Gilgit specimens are rather small; but they are all doubtless referable to *C. canorus*. Two adult males have the wing 8·6 to 8·8 inches; four full-grown females have the

wing 8·1 to 8·7; and two females in hepatic plumage have the wing 7·5 and 7·7.

43. *CUCULUS HIMALAYANUS*, Vigors.

I did not obtain any specimens which can be referred to this species; nor did I ever hear its cry in the Gilgit district. Major Biddulph's specimens, which I think were immature, may have been merely rather small examples of *C. canorus*.

45. *CERTHIA HIMALAYANA*, Vigors.

A permanent resident; common at an elevation of 5000 feet from the third week in October to the end of March, and during the rest of the year in the pine-forests above 8000 feet. In seventeen specimens the wing measures 2·6 to 2·95 inches, tail 2·2 to 2·95.

46. *CERTHIA HODGSONI*, Brooks.

This species is rare in Gilgit. Specimens were only obtained in June and July, in the pine-forests, at an elevation of over 9000 feet. In *Certhia hodgsoni* there is no pale spot on the outer web of the first *four* primaries. In a large series of *C. familiaris* I find that only the first *three* primaries are unspotted, a pale spot being constantly found on the outer web of the fourth quill. There are some other distinctions; but the one mentioned suffices for the discrimination of the Kashmir Creeper from its European ally.

47. *TICHODROMA MURARIA* (Linn.).

A winter visitor; common at an elevation of about 5000 feet from the middle of October to about the end of March. Specimens obtained from October to the middle of February have the head brown; towards the end of February and in March the brown cap is replaced by grey.

48. *SITTA LEUCOPSIS*, Gould.

I only obtained this Nuthatch from the beginning of April to September; it was never seen in the lower parts of the valleys away from pine-forests. Ten specimens measure—wing 2·95 to 3·15, tail 1·7 to 1·9, tarsus 0·7 to 0·73, bill from gape 0·8 to 0·86. The colour of the feet in fresh specimens varies from slaty to black.

49. *UPUPA EPOPS*, Linn.

I obtained the Common Hoopoe in Gilgit as early as the 25th February. Five specimens have the wing 5·6 to 5·9 inches, bill at front 1·75 to 2·3, and agree well in colour with examples from Asia Minor.

50. *LANIUS HOMEYERI*, Cabanis.

This Grey Shrike is rare in Gilgit, and is only found on migration in spring and autumn. I obtained a male on the 27th November, which measured—length 10·4 inches, expanse 14·6, wing 4·65, tail 4·5, tarsus 1·15, bill from gape 1·14, culmen 0·75, closed wings short of end of tail 3, outer tail-feathers 0·85 shorter than uropygials. I proceed to give a description of this specimen, by which the species may be discriminated from its numerous allies.

Forehead sullied white; lores white, with fine black shafts to the feathers; rump grey, the same colour as the back; basal part of upper tail-coverts white, the terminal halves of these feathers a paler grey than the rump and back; minor wing-coverts grey. Chin, upper throat, lower wing-coverts and axillaries, and lower tail-coverts white; rest of lower surface pinkish white, with faint crossbars on the breast and upper part of abdomen, formed by narrow pale-brown margins to the feathers. All the primaries white on both webs at the bases; the secondaries white on both webs at the bases, except the innermost two, the white on the inner webs running narrowly down to the tips of the feathers; from the eighth primary to all but two of the innermost secondaries with conspicuous white margins to the tips of the feathers. Outermost pair of rectrices wholly white, the central part of the shaft alone black; next pair white on outer web, the inner web white, with a large black patch about the middle of the feather; third pair white at base and tip, the intermediate part black on both webs; fourth pair with more black than the preceding on both webs, especially towards the tip, where only half an inch of white remains; fifth pair with only a small spot of white at tip, and little more white at base than on the uropygials; uropygials black, white at base for 1·2 inch.

This specimen is, I believe, correctly referred to *L. homeyeri*. It differs from *L. lahtora* in many particulars, too numerous to mention. From *L. excubitor* it differs in having more white on the lores, wings, and tail, the size of the feet and the breadth of the tail-feathers being the same as in that species.

51. *LANIUS ERYTHRONOTUS* (Vigors).

In my collection are specimens of this Shrike shot in Gilgit from the 18th April to the 28th December; but the last bird must be considered very late in migrating, as this species leaves us, I think, in October.

52. *LANIUS CRISTATUS*, Linn.

This species must be expunged from the Gilgit list. In the rufous-tailed Shrikes there are two distinct sections, characterized by the shape of the tail:—one (A) embracing *cristatus*, *phænicurus*, and allies, in which all the rectrices are narrow, the outer pair decidedly more narrow than the next, and over three quarters of an inch shorter than the uropygials; and another (B), which includes *isabellinus*, *phænicuroides*, *speculigerus*, and *collurio* (female and young), in which the tail-feathers are broad, with the outermost pair as broad as the next, and not more than half an inch shorter than the centrals. Now I examined the specimen secured by Major Biddulph, and identified in his list as *L. cristatus*. It certainly belonged to section B, and was one of the three following species; but which of these, I am not prepared to say without further examination.

LANIUS ISABELLINUS, Hempr. & Ehr.

Lanius arenarius, Blyth.

This Shrike only passes through Gilgit on migration. I obtained an adult specimen on the 27th April, which measured—length 7·4 inches, wing 3·5, tail 3·1, tarsus 0·94; third and fourth quills equal and longest, second intermediate in length between the sixth and seventh; fifth, sixth, and seventh primaries with a small spot of white on both webs at base; head and back pale sandy; lower surface cream-coloured, slightly tinged with rufous; lores white, with a small dark spot in front of the eye.

Mr. Dresser, in his 'Birds of Europe,' has figured *L. phænicuroides* under the name of the present species, on the assumption that *L. phænicuroides* merely represents the full breeding-plumage of *L. isabellinus*. That this is an error I can assert, as I obtained many specimens of *L. isabellinus* in breeding-plumage, in Yarkand, not differing in colour at all from winter examples common in collections from the north-west of India. I may here mention that the young of *L. isabellinus* differs altogether from the young of *L. phænicuroides*, the former being even paler isabelline above than the adults, and very slightly crossbarred on the lower surface, while in young *L. phænicuroides* the colour above is dark rufous-brown, and the underparts are prominently crossbarred.

Lanius speculigerus differs from *L. isabellinus* in having the whole lores black, and it has a large white patch on the wing. A difference in shape of bill has also been insisted on; but in the few examples of *L. speculigerus* I have examined there seemed to be hardly any variation in this respect.

LANIUS PHÆNICUROIDES, Severtzoff.

Lanius phænicuroides, Severtzoff, Stray Feathers, iii. p. 430 (1875).

This species was only observed during the autumn migration. An immature specimen shot on the 8th September measured—length 7·5 inches, wing 3·5, tail 3·15, tarsus 0·85, bill from gape 0·8, culmen 0·75; third and fourth primaries longest, second intermediate in length between the fifth and sixth; head, rump, and under tail-coverts rufous, barred with black; rest of upper surface dark rufous-brown, unbarred; lower surface white, crossbarred with dark brown.

The adults of this species differ from *Lanius isabellinus* in having a differently shaped wing and tail, in the wing-speculum being larger, the lower surface white, the whole lores black, the head more rufous than the back, and the quills more black. To *phænicuroides* must be referred:—Mr. Dresser's figure of *L. isabellinus* before mentioned; Lord Walden's figure and description of *L. isabellinus* in 'The Ibis,' 1867, pp. 224, 226, pl. v. fig. 1; Schalow's supposed young *L.*

arenarius, J. f. O. 1875, p. 143; Nos. 1 and 15 of the specimens mentioned by Mr. Blanford in his 'Zoology of Persia,' p. 140; and the specimen referred to as a fully adult male by the same author in his 'Zoology of Abyssinia,' p. 339.

Severtzoff's name of *L. phænicuroides* is happily chosen; for his species does bear a great resemblance to *L. phænicurus*; but, as I mentioned under *L. cristatus*, it belongs to a different section according to the characters of its tail.

LANIUS COLLURIO, Linn.

The Red-backed Shrike is found in Gilgit only on passage. I obtained three immature examples, on the 4th and 16th September and 2nd November, during the autumn migration, but never observed it at any other time. This Shrike is recorded by Severtzoff as breeding in Turkestan, and is a rare autumn straggler to the plains of India in the north-west. My specimens measure—length 7·2 to 7·4 inches, wing 3·7, tail 3·2 to 3·5, tarsus 0·8 to 0·95, bill from gape 0·8 to 8·85, culmen 0·68 to 0·7; they agree perfectly with a series of young English examples of *L. collurio* with which I have compared them. Young *L. collurio* is very like young *L. phænicuroides*, but can easily be distinguished from it thus: in *L. collurio* the second primary is intermediate in length between the fourth and fifth, and the distance between the longest secondaries and longest primary is about equal to the length of the tarsus; in *L. phænicuroides* the second primary is intermediate in length between the fifth and sixth, and the distance between the tips of the secondaries and the point of the wing is less than the length of the tarsus. There are also some minor differences in colour, amount of crossbarring beneath, and in the relative lengths of the uropygials and second primary.

53. PERICROCOTUS BREVIROSTRIS (Vigors).

This species seems to be only a winter visitor to the lower valleys of the Gilgit district; it is not uncommon from the last week in October to the beginning of February. All the flocks I saw consisted exclusively of females and young males in grey and bright yellow plumage, the gorgeous black and

crimson adult males being conspicuous by their absence. Six specimens measured—length 7·3 to 8·3, wing 3·5 to 3·7, tail 4 to 4·7, bill from gape 0·72 to 0·76. These examples agree well with a series of *Pericrocotus brevirostris* from the Himalayas further east, but have the ear-coverts paler grey.

54. *BUCHANGA LONGICAUDATA* (Hay).

This species is only a straggler to Gilgit, probably from some of the lower and hotter valleys further south. A female shot in Gilgit on the 2nd of September measured—length 10·8 inches, wing 5·3, tail to fork 4, to end of outermost rectrices 5·9, tarsus 0·65, bill from gape 1·05; this was an immature bird with whole lower surface dull black without gloss, the under wing-coverts barred and tipped with white, and the irides dark brown.

55. *MUSCIPETA PARADISI* (Linn.).

This Flycatcher is rare in Gilgit, and appears to visit us only on migration. I obtained a male on the 11th May, in chestnut plumage and with the short tail; the crest was well developed, and the chin and throat glossy black. An immature specimen procured on the 25th August is also in chestnut plumage, but with the crest short, and the neck and breast dull ashy. Severtzoff records this species as migratory to Turkestan, where it breeds; so the examples obtained at Gilgit may have been on migration to and from that country.

56. *HEMICHELIDON SIBIRICA* (Gmel.).

This Flycatcher appears in Gilgit as early as the 11th May, and leaves for the south in September. From the middle of May to the first week in June it is common in the lower valleys, principally in orchards, at elevations of 5000 to 7000 feet; in the latter part of June and throughout July and August it is only found in the forest above 8000 feet, where it breeds. A young but full-grown bird, shot on the 6th August, differs a little from Mr. Sharpe's description of the young of this species (Cat. iv. p. 121). Head sooty, narrowly streaked with white; back brown, streaked and mottled with buff; rump and upper tail-coverts margined and spotted with rufous buff; lower tail-coverts rufescent, edges of quills as in

adult; gape bright yellow, base of mandible yellow; iris black.

57. *MUSCICAPA GRISOLA*, Linn.

This species is common from the middle of May to the end of September. In May and during the last three weeks of September it is found in the lower parts of the valleys; but from the beginning of June to the first week in September it is only met with in the pine-forests, at elevations of over 8000 feet, where it breeds. Examples shot in September have the wing-coverts and secondaries broadly margined and tipped with pale fulvous; in midsummer these feathers are narrowly margined with white.

58. *SIPHIA RUFICAUDA* (Swainson).

A summer visitor only, arriving about the 10th May, and doubtless breeding in the pine-forests. The sexes do not differ in any way in colour. The maxilla is dark brown and the mandible pale horny.

59. *TROGLODYTES NEGLECTUS*, Brooks.

This Wren is a permanent resident in the district, and in winter is one of the commonest and most familiar birds in the lower parts of the valleys. Four specimens measured—length 3·5 to 3·8 inches, wing 1·8 to 2·05, tail 1·15 to 1·35, tarsus 0·65 to 0·7, bill from gape 0·57 to 0·6. Compared with specimens of *T. nipalensis* from Sikkim, I find that the distinctions on which Mr. Brooks separated the Kashmir Wren from the Eastern-Himalayan form are fairly borne out. The Gilgit birds are paler in colour, and have the feet smaller and more slender, with the claws shorter and less powerful than in *T. nipalensis*.

60. *MYIOPHONEUS TEMMINCKI*, Vig.

Gilgit specimens are identical with examples from Cashmere. In males the wings measure 7·1 to 7·6 inches, in females 6·7 to 6·8.

61. *CINCLUS ASIATICUS*, Swains.

This Dipper is a permanent resident, being common in summer along the small streams at elevations of 6000 to 9000

feet, and frequenting the larger rivers in winter at an elevation of less than 5000 feet. In ten specimens the wing measures 3·55 to 4·1 inches, tail 2·4 to 2·65, tarsus 1·05 to 1·2, and culmen 0·9 to 1.

62. *CINCLUS CASHMIRIENSIS*, Gould.

The Kashmir Dipper was only found by me on the stream of a valley near Gilgit at an elevation of about 9000 feet. The species was rare there, and only one male (a moulting and immature bird) was secured, which measured—length 7·8 inches, wing 3·9, tail 2·4, tarsus 1·1, bill from gape 1, culmen 0·9, bastard primary 0·9. The following is a description of my specimen, shot on the 14th October:—Head, sides of face and neck, hind neck, and upper back mixed slaty grey and dark brown, the latter being the colour of the new feathers and marking the adult dress; minor and secondary wing-coverts dusky grey, with black margins to the feathers; greater coverts and quills dusky grey, with narrow white margins to their tips; lower back and rump dark grey, the feathers with narrow black margins; upper tail-coverts and tail slaty grey. Chin, throat, breast, and centre of abdomen white, with faint narrow brown undulations on the throat and breast and a few new brown feathers on the abdomen; flanks dark brown, with narrow pale tips to the feathers; lower tail-coverts slaty grey, pale-tipped.

63. *MONTICOLA CYANUS* (Linn.).

Common at an elevation of 5000 feet from the third week in April to the third week in May, and again from the middle to the end of October on migration. In the series collected none of the males have any trace of chestnut on the abdomen; and in fifteen specimens, the sex of which was carefully determined, no female was met with in the blue plumage of the adult male. In the males the wings measure 4·5 to 4·8 inches, and in the females 4·4 to 4·65.

64. *MONTICOLA CINCLORHYNCHA* (Vigors).

The only specimen of this species observed in Gilgit was shot by me on the 28th September; it may have been on migration, or possibly was only a straggler from some of the

neighbouring valleys to the south. The bird, a young male, is profusely spotted, but has the minor coverts blue and the tail edged with the same colour. Length 7·25 inches, wing 3·95, tail 2·7, tarsus 0·95, bill from gape 1; bill dusky, gape pale yellow.

65. *MONTICOLA SAXATILIS* (Linn.).

Common in Gilgit, on migration, from the 20th August to the 30th September. The adults seem to make no stay in the district; all the birds observed and shot are immature. In thirteen specimens, in immature barred and spotted plumage, the wings vary from 4·7 to 4·9 inches.

67. *MERULA ATROGULARIS* (Temm.).

This species is common at an elevation of about 5000 feet from the first week in October to the middle of May. In thirteen examples from Gilgit the wings vary in length from 4·9 to 5·3 inches. My specimens do not bear out Major Biddulph's observation that when the black on the throat is fully assumed the axillaries and under wing-coverts become earth-brown uniform with the flanks.

68. *TURDUS VISCIVORUS*, Linn.

I only met with this Thrush in the Gilgit district in summer, at elevations of over 9000 feet, where it breeds. My specimens agree perfectly in colour with examples from Asia Minor. An adult bird has the wing 6·45, and a young bird, shot on the 28th July, has the wing 6·15.

69. *TROCHALOPTERUM SIMILE*, Hume.

This fine species is, with us, singularly local. I never saw it in Gilgit, but it is common and a permanent resident in Sharot and Bargo, 15 miles higher up the valley, at an elevation of about 5500 feet. It is only found in places densely covered with trees and bushes. In eleven specimens the wing varies in length from 4 to 4·25 inches; all these have the outer webs of the quills and the subterminal band on the tail pure grey, without any shade of yellow, red, or olive. The ear-coverts are ashy, not dark brown; the grey band on the uropygials varies in depth from 1 inch to 1·2, and this

grey band increases on the lateral tail-feathers, encroaching more on the outer web: the outermost pair of rectrices are not marked at all with black.

70. *TROCHALOPTERUM LINEATUM* (Vigors).

A permanent resident, common and widely distributed in the district, wherever bushes and trees are found, at elevations of from 4600 to 9000 feet; it breeds in June. Gilgit examples are identical with specimens from the Kashmir valley, and are rather larger and paler than the birds from the more eastern parts of the Himalayas.

71. *ORIOLE KUNDU*, Sykes.

This Oriole is found throughout the summer about orchards in the lower valleys, and apparently does not ascend above 7000 feet; it migrates southwards from Gilgit in September. It is remarkable that this species, which is widely spread and sedentary in many parts of the plains of India, should be a summer migrant to the valley of Nepal, Gilgit, and even to Yarkand in Central Asia. Specimens from these three localities, however, are quite identical with examples from the plains of India.

PRATINCOLA CAPRATA, Linn.

Of this species, which is not included in Major Biddulph's list, I shot a single specimen in Gilgit on the 10th December, 1879, when it was doubtless on migration; this was the only occasion on which it was observed. The bird, a female, measured—length 5·05 inches, wing 2·64, tail 1·95, tarsus 0·8, bill from gape 0·63. Bill, feet, and claws black, irides dark brown; upper tail-coverts deep ferruginous, lower tail-coverts buff. *P. caprata* has been found as far west as the valley of the Atreek (Seeböhm, P. Z. S. 1879, p. 764).

72. *PRATINCOLA MAURA* (Pallas).

This species is common in Gilgit from the last week in March to the middle of May, and again from the first week in September to the beginning of November. It probably breeds in the district at high elevations. In seventeen specimens the wings vary from 2·55 to 2·97 inches, and the tails

from 1·93 to 2·3. The specimens mentioned by Capt. Marshall with striated upper tail-coverts and rump are, I think, certainly not *P. rubicola*; the streaks referred to are much less pronounced than in female *P. rubicola* and apparently indicate a phase of plumage of the immature *P. maura*.

73. *PRATINCOLA ROBUSTA*, Tristram, apud Marshall, Ibis, 1881, p. 55, nec Tristram.

Pratincola robusta cannot be included in the list of Gilgit birds. Canon Tristram's type of that species, from Mysore in the south of India, has recently been shown (Stray Feathers, ix. p. 133, 1880) to be quite distinct from the birds referred to by Captain Marshall under that name. The form mentioned by Captain Marshall would, if distinct from *P. maura*, require a new name; but with a large series of these birds from Gilgit, and after examining the specimens in Mr. Seeböhm's collection and in the British Museum, I cannot agree that the proportional length of the tail or any of the other points brought forward will justify the splitting of *Pratincola maura* into two species.

74. *SAXICOLA OPISTHOLEUCA*, Strickl.

This species is rare in Gilgit and perhaps only occurs there on passage to Turkestan, whence Severtzoff records it, under the name of *S. syenitica*, as breeding. According to my observations it appears in Gilgit, in small numbers, in April and May on its way north, and passes southwards again late in autumn. I have the following notes of a bird of this species shot in Gilgit on the 23rd December:—Length 6·5 inches, wing 3·7, tail 2·9, tarsus 0·95, bill from gape 0·85; bill, feet, and claws black, gape yellow, iris brown; the head and nape ashy, forming an ill-defined cap. The young bird described by Major Biddulph is possibly the young of *Saxicola morio*.

75. *SAXICOLA PICATA*, Blyth.

Saxicola capistrata, Gould.

A summer visitor to Gilgit, and exceedingly common from the middle of March to the middle of September. Of fifty specimens in my collection, thirty are males, and these show

every possible gradation between the form with the greyish-white cap (*capistrata*) and the one having the whole head pure black (*picata*) ; it is quite impossible to separate my series into two species. I have observed and shot examples with the white cap throughout the breeding-season in company with brown females quite undistinguishable from those of *picata*, so that the females of both forms are certainly alike. With reference to Major Biddulph's remarks on this subject, I do not now believe that the white head "is assumed in the spring of the first year only ;" in a large series examined (including the type) there is no satisfactory evidence that the white cap is dependent upon age. *Saxicola picata* is said to have a wider range than *S. capistrata*, and this question merits further investigation ; but I find that about half of the specimens usually called *S. picata* show, on close examination, some slight traces of white about the sides of the head.

Messrs. Blanford and Dresser, in their Monograph of the genus, confused *Saxicola capistrata* with *Saxicola morio*, and described a male of the former from Lahore as *S. morio*. *S. capistrata*, male, differs from *S. morio*, male, in breeding-plumage, in having the bill and feet much larger and coarser, the white on the head not extending to the interscapulary region, a different pattern of black on the tail-feathers, and the wing-formula never the same ; in *Saxicola capistrata* (= *picata*) the second primary is intermediate in length between the sixth and seventh ; in *S. morio* the second primary is intermediate between the fifth and sixth. In the flesh the two birds could not be mistaken, *S. capistrata* being much more bulky than *S. morio*.

76. SAXICOLA ALBONIGRA, Hume.

This fine species is, according to my experience, only a winter visitor to the Gilgit district, and is common there, at an elevation of about 5000 feet, from the beginning of November to the end of February. I never saw it in summer, and the specimen procured by Major Biddulph in June may have been only a straggler. The sexes are precisely similar

in plumage, but the female is smaller than the male. Twelve males measured :—length 7 to 7·4 inches, wing 4·1 to 4·35, tail 2·9 to 3·1, tarsus 1 to 1·1, bill from gape 0·95 to 0·96; five females measured :—length 6·7 to 6·85, wing 3·9 to 4·02, tail 2·5 to 2·8, tarsus 0·9 to 1, bill from gape 0·85 to 0·95. The black band on the lateral tail-feathers varies in depth from 0·5 to 0·85; the second primary equals the sixth in length.

Saxicola albonigra is distinguishable from *Saxicola picata* by having the sexes coloured alike, by being much larger, and by having a differently shaped wing.

From the male of *S. picata*, with which alone it could be confounded, its large size, different wing-formula, brighter colours, and less extended black on breast and back at once separate it.

77. *SAXICOLA MORIO*, Hempr. & Ehr.

81. *Saxicola hendersoni*, Hume.

This species is common in Gilgit from the third week in April to the end of June, and again from the beginning of September to the first week in October. Most of the birds that visit us in spring go further north, but a few probably breed in the district. I preserved fifty-five specimens of this species, and after comparison with the types in the British Museum I entertain no doubt that *Saxicola hendersoni* is merely a synonym of *S. morio*. *S. hendersoni* was described from specimens in autumn plumage; but I for some time thought that even in breeding-plumage it could be distinguished from typical *S. morio* by having more white on the lateral tail-feathers. Every intermediate stage, however, is represented in my collection, from a broad black band on the ends of the feathers next to the uropygials to the form in which the white runs right down to the tips of these rectrices. Major Biddulph has correctly pointed out that the female of this species is quite unlike the male in colour. In my series the length of the wings varies from 3·35 to 3·8, and the second primary is intermediate in length between the fifth and sixth.

78. *SAXICOLA VITTATA*, Hempr. & Ehr.

This rare species appears in Gilgit in very small numbers, and probably on migration only. I obtained two males, of which one, shot on the 11th of May, is in full breeding-plumage and measures—length 6 inches, wing 3·7, tail 2·5, tarsus 0·87. This specimen only differs from the adult male *S. morio*, in breeding-plumage, in having the chin, throat, and breast pure white instead of black. The other male, mentioned in ‘The Ibis,’ 1881, p. 59, is probably immature, as the black feathers of the upper surface are narrowly edged with brown. The female referred to this species by Major Biddulph, on page 60, I find, on reexamination, to be really a female of *Saxicola picata* and not of *S. vittata*.

79. *SAXICOLA ISABELLINA*, Rüpp.

This species is fairly common in Gilgit on migration, from March to the third week in April, and again from the last week in September to the first week in November.

Mr. Blanford, in his ‘Zoology of Persia,’ p. 148, remarks that the length of the black tip on the lateral tail-feathers of *S. isabellina* is $\frac{1}{2}$ to $\frac{3}{4}$ inch. This does not at all accord with my experience. In sixteen specimens of this species now before me the length of the black tip on the lateral tail-feathers varies from 0·9 to 1·05 inch. Mr. Blanford, in the passage above cited, seems to have confounded female *Saxicola ænanthe* with *S. isabellina*. I should say that in the former species the black tip to the outer rectrices does not exceed $\frac{3}{4}$ of an inch, while *S. isabellina* always has more than $\frac{3}{4}$ of an inch of black at the end of the lateral tail-feathers.

+80. *SAXICOLA ÆNANTHE* (Linn.).

This Wheatear passes Gilgit on migration, and is found there in small numbers from the 20th of March to the 22nd April. I did not secure any specimens of this species during the autumn migration. Gilgit examples have the wings 3·7 to 3·9 inches, and the amount of black on the lateral tail-feathers varies from 0·6 to 0·7; they do not seem to be separable from European examples of *S. ænanthe* with which I have compared them.

82. *RUTICILLA RUFIVENTRIS* (Vieill.).

This Redstart passes Gilgit on migration, being common in April and May, on its way northwards, and passing down again late in September. Out of fourteen males procured in spring no less than six were in the plumage of the female.

84. *RUTICILLA ERYTHRONOTA* (Eversm.).

This Redstart is a winter visitor to Gilgit, and is common at an elevation of 5000 feet from the middle of October to the first week in March. In eleven males the wings vary in length from 3·4 to 3·6, and in five females from 3·3 to 3·35. The females have two whitish wing-bars formed by the pale tips of the coverts.

R. alaschanica, Prejevalsky, which is allied to this species by its chestnut back and wing-markings, appears, nevertheless, to be quite distinct. *R. erythronota*, male, has a broad band, comprising the lores, ear-coverts, and sides of neck, black; while in *R. alaschanica* these parts are grey, like the head and nape. In *R. erythronota* the second primary is intermediate in length between the seventh and eighth, but nearer to the seventh; in *R. alaschanica* the second primary is equal to the eighth. The females of the two species are probably very similar in colour, but the difference in shape of wing will doubtless help to distinguish them.

85. *RUTICILLA ERYTHROGASTRA* (Güldenst.).

A winter visitor, and common at an elevation of about 5000 feet, from the middle of October to the middle of April. The males in autumn have the head bluish white; in January and February the cap becomes whiter, and is pure white in the latest-killed April birds. In fifteen males the wings measure from 3·95 to 4·25 inches, and eleven females have the wings 3·7 to 4·1.

Major Biddulph mentions a specimen of which the sex is doubtful; but there should never be any doubt about the sexes in this species, as the young male, even in first plumage, has a large snow-white patch on the wing, which is never seen in the female.

86. *RUTICILLA FRONTALIS* (Vigors).

Not uncommon at an elevation of 5000 feet on first arrival in April. The female of this handsome species may be readily distinguished from the other brown-coloured hens of the genus by the black band, nearly half an inch deep, on the tips of the lateral tail-feathers. Male—length 6·4 inches, wing 3·53, tail 3, tarsus 0·94, bill from gape 0·7; female—length 6, wing 3·15, tail 2·7, tarsus 0·8, bill from gape 0·65.

87. *RUTICILLA CÆRULEOCEPHALA* (Vigors).

Common in the forests from the third week in March to the end of September. In the immature spotted plumage the males can be readily distinguished from the females by the former having snow-white outer margins to the inner secondaries.

88. *RUTICILLA LEUCOCEPHALA* (Vigors).

There does not seem to be any variation in the plumage of this species due to season. Six males have the wings 3·75 to 4 inches, tail 3·2 to 3·26, and bill from gape 0·78 to 0·8; a female measures—wing 3·4, tail 2·9, bill from gape 0·7. One of the male birds has a single chestnut feather on the black nape.

89. *TARSIGER RUFILATUS* (Hodgs.).

Nemura rufilata, Hodgson, P. Z. S. 1845, p. 27.

A summer visitor, and breeds in the pine-forests at an elevation of about 10,000 feet. This species is quite distinct from *T. cyanurus* (Pallas), under which name it is entered in Major Biddulph's list. In the male of *T. cyanurus* the lores and eyebrow are white, surmounted by a narrow line of cobalt-blue, and the under surface is cream-coloured; while in *T. rufilatus* the lores and eyebrow are brilliant cobalt, and the under surface is greyish white. The female *T. cyanurus* is easily distinguished from the same sex of *T. rufilatus* by being more brown on the upper surface, cream-coloured on the abdomen, and by having the lores paler.

Gilgit examples of *T. rufilatus* are paler than specimens from Sikkim with which I have compared them. The spe-

cimen from which Major Biddulph took his description of "the plumage before the first moult" was probably not correctly referred to this species, in which the tail is never "hair-brown."

The immature male of *T. rufilatus* is precisely of the same colour as the adult female, and, as has been several times recorded, breeds in that plumage. The immature female differs from the adult in having the feathers of the head pale-centred, the blue on the rump and tail paler, the white throat-stripe only faintly indicated, and the rust-colour on the flanks less extended.

A nestling obtained on the 14th of August is profusely spotted on the body above and below, and the head is streaked. The upper surface is olive-brown, each feather with a yellowish central spot or streak and a dark brown margin; the under surface is pale yellowish, the feathers with complete dull-black margins; the wings are coloured as in the adult female; the tail, which is under an inch in length, dull greyish *blue* on the upper surface. Bill pale brown, brown on culmen; feet and gape pale fleshy; claws brown, pale at tips.

90. CALLIOPE PECTORALIS.

A summer visitor only. An adult male has the wing 2·9, and a female 2·65. The very distinct *C. tschebaiewi* of Prejevalsky does not extend so far to the west as Gilgit.

+91. CYANECULA SUECICA (Linn.).

This species is very common with us throughout March and up to the third week in April; and again during the autumn migration, from the third week in August to the third week in September. I doubt its breeding in the district; but Severtzoff records it as breeding in Turkestan, and it certainly breeds in Yarkand. In nineteen specimens the wings vary in length from 2·6 to 2·95.

+92. CYANECULA LEUCOCYANEA, Brehm.

Lest any one should doubt the correctness of identification of the bird in my collection referred to by Major Biddulph under this head, I may mention that I have carefully com-

pared it, and that it is undoubtedly an example of the white-throated form of *Cyanecula wolfei* in full breeding-plumage. I did not obtain another example, unless a female, shot on the 1st of September, ought to be assigned to this species.

93. *ACROCEPHALUS DUMETORUM*, Blyth.

A summer visitor only, leaving the district in September. In seven specimens the wings measure 2·4 to 2·5 inches, tail 2·15 to 2·33, tarsus 0·84 to 0·9, culmen 0·64 to 0·68; second primary intermediate between the fifth and sixth.

94. *DUMETICOLA MAJOR*, Brooks.

A summer visitor only. In ten specimens the total length varied from 5·9 to 6·45 inches, wing 2·2 to 2·35, tail 2·4 to 2·65, bill from gape 0·75 to 0·85. The third or fourth primaries are longest, the second equals the seventh or eighth, and the exposed portion of the bastard primary averages 0·55.

96. *PHYLLOSCOPUS TRISTIS*, Blyth.

Common in the lower valleys on arrival from the first week in March to the middle of April, and again from the third week in September to the end of November, on its way to the south; in summer only found above 8000 feet. I cannot detect any difference between several of my skins and examples of *P. sindianus*, Brooks, described in 'Stray Feathers,' viii. p. 476 (1879).

97. *PHYLLOSCOPUS LUGUBRIS*, Blyth.

I have no specimen in my collection which can be referred to this species. The example obtained by Major Biddulph may perhaps have been *P. magnirostris*, which is closely allied to *P. lugubris*. The latter has hitherto been considered quite an Eastern form, not occurring in the north-west of India; while *P. magnirostris*, according to Mr. Brooks, breeds in Cashmere, and is therefore more likely to occur in Gilgit.

98. *PHYLLOSCOPUS VIRIDANUS*, Blyth.

I secured specimens as late as the 23rd September at Gilgit, on migration south.

PHYLLOSCOPUS NITIDUS, Blyth.

This species must, I believe, be added to the Gilgit list on

the evidence of a single example shot there on the 23rd September. This specimen, a female, has wing 2·4 inches, tail 1·85, bill from gape 0·53, exposed portion of bastard primary 0·55, one (lower) wing-bar. Compared with several specimens of *P. viridanus* shot on the same day, its brighter green colour above and considerably more yellow underparts seem to decide in favour of its being referred to *P. nitidus*; and this view is strengthened on comparison of the specimen with Mr. Seebohm's fine series of both species; but unfortunately the Gilgit skin is in bad condition.

100. *PHYLLOSCOPUS AFFINIS* (Tickell).

A summer visitor, arriving early in May, and migrating southwards about the end of September. In May, part of June, and September it is found in the lower valleys; but in the intermediate months it is confined to the forests at high elevations, where it breeds.

101. *PHYLLOSCOPUS INDICUS* (Jerdon).

I found this species less common than its ally *P. affinis*. A specimen was obtained as late as the 14th October, which shows that *P. indicus* is rather late in leaving the district.

102. *REGULOIDES OCCIPITALIS* (Blyth).

I obtained specimens of this species as early as the 11th May, and young birds in July. Major Biddulph appears to be right in not admitting *P. trochiloides* or *flavo-olivaceus* to the Gilgit list.

103. *REGULOIDES HUMIL*, Brooks.

Common from the 21st March to the end of September. Young birds are more green above than adults, have the secondaries conspicuously margined and tipped with buff, and have two prominent greenish-yellow wing-bars.

104. *REGULOIDES SUBVIRIDIS*, Brooks.

This species arrives in Gilgit as early as the 19th March, and leaves in the beginning of October. It has a very marked cry, and can always be distinguished from other allied species by its note.

105. *REGULUS CRISTATUS* (Koch).

A summer visitor, only found in the forests at high elevations, and apparently not common. A male with wing 2·15 inches, bill at front 0·37, has two distinct whitish wing-bars.

. *SYLVIA JERDONI*, Blyth.

This Eastern long-billed race of *Sylvia orphea* appears to have been accidentally omitted from Major Biddulph's list, as he had obtained a specimen in Gilgit before his paper was written. It only passes through Gilgit on migration, in May and June, and again early in September.

106. *SYLVIA AFFINIS*, Blyth.

I have only three specimens, obtained in April, May, and September, which can be referred to this form. The wings measure 2·6 to 2·63, and the second primary is intermediate between the sixth and seventh. The September specimen has the upper parts more brown than the other two, and this is probably due to its having freshly moulted.

107. *SYLVIA ALTHÆA*, Hume.

A summer visitor, and common from the 25th April to the end of September; it breeds at an elevation of about 9000 feet. In males the wings vary from 2·73 to 2·83, in a female the wing measures 2·7. There can be no doubt about the identification, as my skins have been compared with a typical specimen in Mr. Seeböhm's charge.

108. *SYLVIA RUFA* (Bodd.).

So far only obtained during the autumn migration. Two specimens measured—wing 2·8 inches, tail 2·6 and 2·7, tarsus 0·85 and 0·86.

109. *HENICURUS SCOULERI*, Vigors.

A permanent resident, at elevations of 5000 to 7000 feet. It is nearly confined to the small streams, but is occasionally found in winter on the banks of the larger rivers, and has for associates *Ruticilla leucocephala* and *Cinclus asiaticus*. I cannot detect any difference between Gilgit examples of *H. scouleri* and a specimen from Moupin in Eastern Thibet.

110. MOTACILLA HODGSONI, Gray.

Two males of this Wagtail, shot on the 20th May, measure—length 8·1 and 8·2 inches, wing 3·8 and 3·84, tail 4 and 4·2, tarsus 0·9 and 0·93, bill from gape 0·73, culmen 0·67 and 0·7; a female, shot on the 16th May—length 7·8, wing 3·6, tail 3·8, tarsus 0·9, bill from gape 0·75, culmen 0·7. These specimens are in full breeding-plumage, and have the whole back black. A comparison of the above measurements with those which I give of the next species will show that *M. hodgsoni* is not constantly larger than *M. personata*, although on the average it may be a heavier bird. The black back of *M. hodgsoni* seems to be the only constant difference between the two forms; but that is certain, and proves that it is specifically distinct from *M. personata*.

111. MOTACILLA PERSONATA, Gould.

Major Biddulph mentions that he did not preserve any specimens of this Wagtail during the summer months; but I have a number of specimens, shot towards the end of May, with pure grey backs; certainly in both sexes of this species the back is always grey. Thirty-four adult specimens, shot in Gilgit, measure—length 7·4 to 8·2 inches, wing 3·3 to 3·9, tail 3·5 to 4·1, tarsus 0·8 to 1·03, bill from gape 0·65 to 0·76, culmen 0·63 to 0·7.

+112. MOTACILLA ALBA, Linn.

This Wagtail only passes through Gilgit on migration; it is not uncommon in April, when I secured a specimen as early as the 13th, and again from the third week in September to the first week in November. A comparison of six specimens from Gilgit with twenty European specimens of *Motacilla alba* shows that the Gilgit birds are of a paler grey colour on the back, and have more white on the wing; moreover winter specimens of the European bird are tinged with yellow about the face, while the Gilgit examples do not show any trace of this colour. Those who maintain that *M. dukhunensis* of Sykes must be distinguished from *M. alba* would class the Gilgit specimens under the former title.

113. *CALOBATES MELANOPE* (Pallas).

Common from March to November, and breeds from May to July, at elevations of 6000 to 9000 feet. Females shot on the 26th April, when the males had fully assumed the black on the throat, had the whole chin and throat pure white.

114. *BUDYTES VIRIDIS* (Gmel.).

This species seems only to pass through Gilgit on the spring and autumn migrations, and is never common. Two adult males, shot on the 9th May, have the head and nape dark bluish grey, the lores, cheeks, and ear-coverts black, and do not show any trace of a pale supercilium.

116. *BUDYTES CALCARATUS*, Hodgson.

A summer visitor, and breeds in Gilgit. In nine specimens the wings measure 3·15 to 3·5; the adult female has the back coal-black, as in the male, but is smaller and has less white on the wing.

117. *BUDYTES CITREOLUS* (Pallas).

This Wagtail is a summer visitor, and breeds in the Gilgit district. I obtained specimens from the 6th March to the 6th June, and again from the 18th August to October. I can confirm Major Biddulph's observation that the fully adult female of this species is coloured precisely like the adult male in breeding-plumage; but many of the females appear to breed in a younger stage of plumage, when the head is olive, with a bright yellow supercilium and dark ear-coverts. In twenty-two males the wings vary from 3·3 to 3·7 inches, and in twelve females the wings measure 3·1 to 3·2.

118. *ANTHUS TRIVIALIS* (Linn.).

A summer visitor, arriving about the middle of April, and migrating southwards in September; it breeds at an elevation of about 9000 feet. In the series collected, every stage of plumage can be exactly matched by European specimens procured at like seasons. The Eastern form, *A. maculatus* of Hodgson, is quite distinct from this species.

120. *ANTHUS ROSACEUS*, Hodgs.

Common on passage from the 22nd April to the end of

May; not observed during the autumn migration. Ten specimens, in full breeding-plumage, have the wing 3·3 to 3·7 inches, and tail 2·6 to 3·1; minor wing-coverts green, edge of wing and axillaries sulphur-yellow.

122. *ANTHUS BLAKISTONI*, Swinhoe.

Common from the middle of October to the beginning of April. In the males the wings vary in length from 3·4 to 3·7 inches, and the tails from 2·75 to 2·9; in females the wings measure 3·25 to 3·45, and the tails from 2·5 to 2·9. Birds shot in Gilgit in November agree perfectly with Mr. Swinhoe's type of *Anthus blakistoni* from Amoy, with which I have compared them.

[To be continued.]

XXXVI.—*Note on Harpa novæ-zealandiæ*. By WALTER L. BULLER, C.M.G., Sc.D., F.R.S.

THROUGH some miscarriage, I have only lately received my copy of 'The Ibis' for October 1879, which contains a paper by Professor Hutton on *Harpa novæ-zealandiæ*. Not having seen it before, I wish now to offer a few observations in reply.

Prof. Hutton's argument against the recognition of two species, although supported by a table of measurements, rests on too many bare assumptions to be of much value in determining this vexed question. For example, he assumes that since the publication of 'The Birds of New Zealand' I have examined *only* the two specimens mentioned in the seventh volume of the 'Transactions of the New-Zealand Institute.' He assumes that Mr. Sharpe "doubts the accuracy of the labels attached to the British-Museum specimens" simply because Mr. Sharpe, in his 'Catalogue of Birds,' has quoted the dimensions of the sexes from my work. He assumes (with Mr. Potts) that Dr. von Haast was "mistaken in supposing that he got his bird from the nest and determined its sex" and that he only "guessed at its sex." He assumes that Mr. Fuller, the taxidermist, was wrong in his